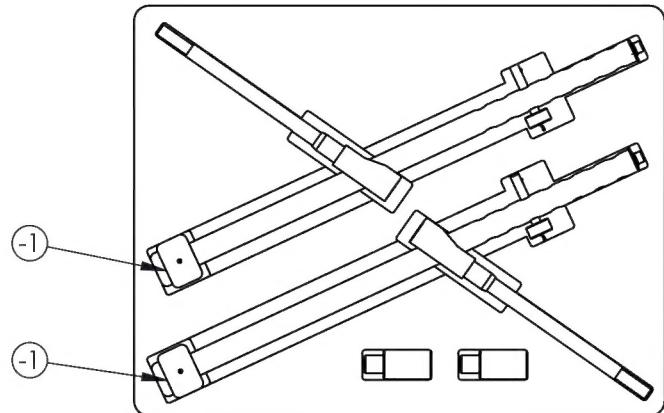


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| REVISIONS | | | | |
|-----------|--|----------|---------|----------|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED |
| A | -3 ADDED $\phi .190 \downarrow .03$ HOLE FOR -43 SET SCREW. -5 CH'D 1/4-20 UNC COUNTERSINK WAS $\checkmark \phi .38$ X 90° IS $\checkmark \phi .50$ X 60°. -7 ADDED #10-32 $\downarrow .60$ HOLE FOR -43. -13 ADDED MISSING THREAD CALL OUT 2X 1/4-20. BOM -31 CH'D LENGTH WAS 3/4 IS 5/8. -43 ADDED TO BOM & -1 ASSY. -3, -5, -7, -15 CH'D FINISH WAS CLEAR ANODIZE IS RED ANODIZE. | 9/3/2013 | RJC | DW |
| 1 | -3, -5, -7, -15 CH'D FINISH WAS RED ANODIZE IS .0004-.0006 NICKEL PLATE AND ADDED BAKE NOTE. -11 ASSY. REPLACED WITH -15, DELETED -13 & -31. ADDED PARTS -10, -16 AND -45, -47. -3 CAP REMOVED. ADDED TAPPED HOLE 1/2-13 $\downarrow 1.00$. CH'D MATERIAL WAS 6061 1018 CD. CH'D ROD DIA. WAS .99 IS 1.00. CH'D HOLE CALLOUT WAS 7X $\phi .377$ IS 7X $\phi .386$. -5 REMOVED 1/4-20 $\downarrow .75$ THREADED HOLE AND ADDED EXTERNAL 1/2-10-3G ACME THREAD. INCREASED LENGTH OF SHAFT AND LENGTH OF SLOT. CH'D MATERIAL WAS 6061 IS 4140 HEAT TREATED. -7 CH'D MATERIAL WAS 6061 IS 1018 CD. -9 DELETED ONE $\phi .15$ HOLE. CH'D ONE HOLE WAS $\phi .15$ IS .156 -.160 P.F. -47, -15 CH'D GRIP LENGTH WAS .75 IS 2.00 AND OVERALL LENGTH CH'D WAS 1.75 IS 2.82. CH'D MAT'L WAS 6061 IS 1018 CD. REMOVED PIN HOLE AND THREADED HOLE. ADDED 1/2-10-3G ACME THREADS WITH COUNTER BORE. -33 CH'D CUTOUTS FOR -1 AND -15. -16 ADDED TO BOM AND -1 ASSY. -10 ADDED KNOB TO PUT ON -9. | 9/27/13 | PW | DW |

| ASSY QTY | ASSY QTY | B/O | Part # | UNIT QTY | Description | Material | B/O INFORMATION OR SPECIFICATIONS | PG. |
|----------|----------|-----|--------|----------|-----------------------|--------------------|--|-----|
| X | | | -1 | 2 | GAG BAR ASSEMBLY | | | 2 |
| 1 | | | -3 | | ROD | 1018 CD | $\phi 1$ X 21-5/8 | 3 |
| 1 | | | -5 | | PIN BLOCK | 4140 | $\phi 2$ X 12 | 4 |
| 1 | | | -7 | | HOOK BLOCK | 1018 CD | $\phi 2$ X 2 X 3-3/4 | 5 |
| 1 | | | -9 | | QUICK RELEASE PIN | S.S. | $\phi 3/8$ X 2 MCMASTER-CARR #98404A925 (MODIFIED) | 6 |
| 1 | | | -10 | | KNOB | 1018 | $\phi 1$ X 5/8 | 11 |
| 1 | | | -15 | | KNOB | 1018 CD | $\phi 1-1/4$ X 3 | 7 |
| 1 | | | -16 | | BUTTON | 1018 CD | $\phi 1-1/2$ X 5/8 | 10 |
| 1 | B/O | | -17 | | SOCKET HEAD CAP SCREW | S.S. | 5/16-24 X 1/2 MCMASTER-CARR #92196A335 | 2 |
| 1 | B/O | | -19 | | WASHER | S.S. | $\phi 5/16$ X 1-1/4 MCMASTER-CARR #90313A111 | 2 |
| 1 | B/O | | -21 | | WASHER | S.S. | $\phi 5/16$ MCMASTER-CARR #98017A690 | 2 |
| 1 | B/O | | -23 | | LANYARD | COATED STEEL | $\phi 1/16$ X 10 CARR LANE #CL2C | 2 |
| 1 | B/O | | -25 | | LANYARD | COATED STEEL | $\phi 1/16$ X 3 CARR LANE #CL2C | 2 |
| 4 | B/O | | -27 | | FERRULE | ALUMINUM | $\phi 1/16$ X 3/8 MCMASTER-CARR #3896T31 | 2 |
| 1 | B/O | | -29 | | REMOVE BEFORE FLIGHT | NYLON | NAS 1756-36 | 2 |
| | B/O | | -33 | 1 | BOTTOM TOOL CUSHION | Y20 BLACK | 17.09 X 22.09 X 6.10 | 8 |
| | B/O | | -35 | 1 | TOP TOOL CUSHION | Y-20 BLACK | 17.09 X 22.09 X 1.90 | 9 |
| | B/O | | -37 | 1 | CASE | PLASTIC | PELICAN #APP-IM2700-E | NS |
| | B/O | | -39 | 1 | RED BARN PLACARD | ALUMINUM | RB41009 | NS |
| | B/O | | -41 | 4 | RIVET | ALUMINUM | $\phi 1/8$ X 3/8 EUGENE FASTNER & SUPPLY RAA46X | NS |
| 2 | B/O | | -43 | | CUP POINT SET SCREW | S.S. | #10-32 X 1/4 MCMASTER-CARR #92313A825 | 2 |
| 1 | B/O | | -45 | | FLAT HEAD SCREW | PLATED ALLOY STEEL | 1/2-13 X 1-1/4 MCMASTER-CARR #91263A603 | 2 |
| 1 | B/O | | -47 | | SPLIT PIN | STEEL | $\phi 5/32$ X 7/8 MCMASTER-CARR #90692A712 | 2 |
| ASSY -1 | | | | | | | | |

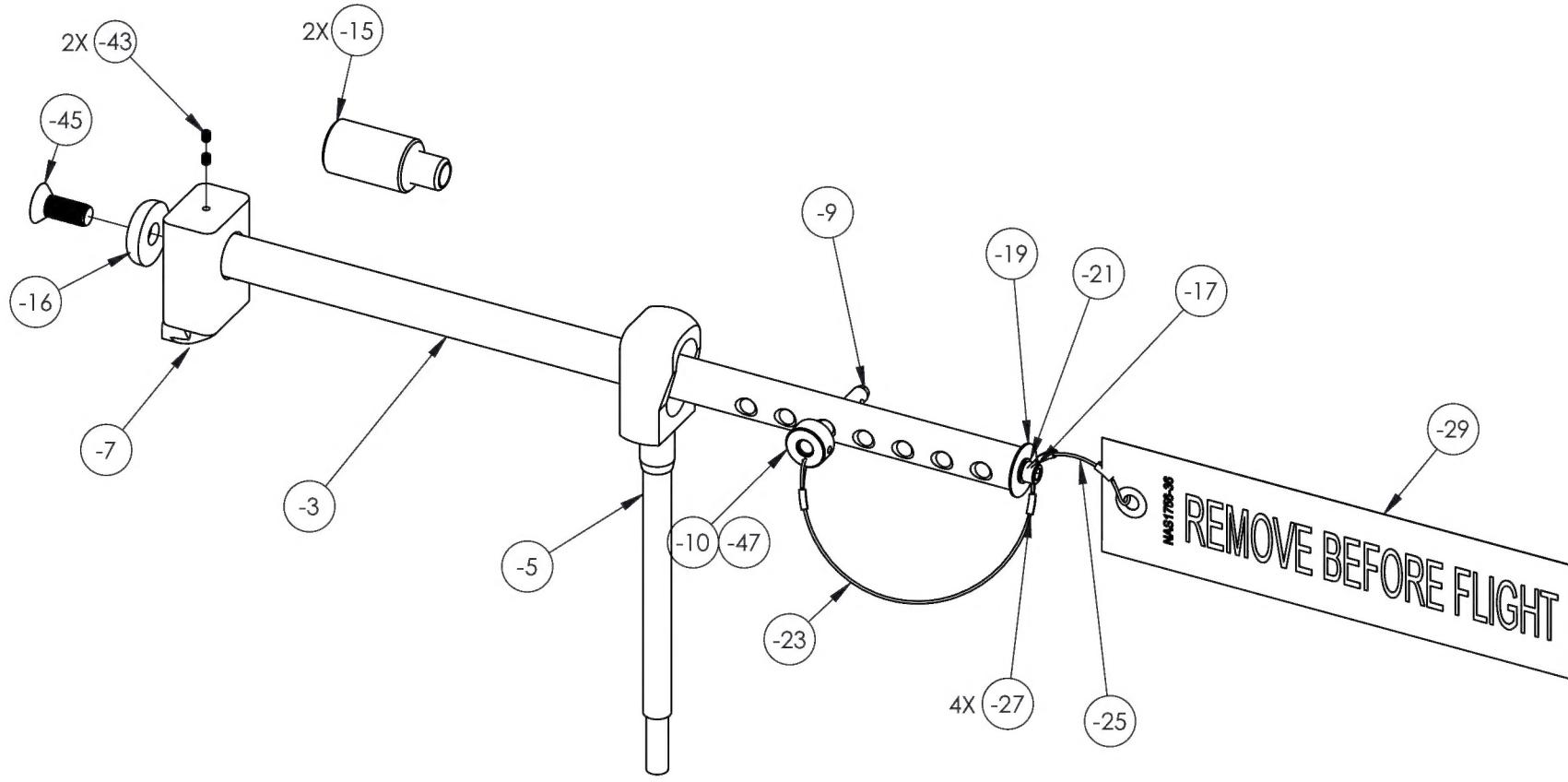
 RED BARN MACHINE

AW139 GAG BAR

| TITLE | REV |
|-------------------------------------|---------------|
| AW139 GAG BAR | 1 |
| DWG NO. | REV |
| RBW10003 | 1 |
| MAT'L | DRAWN BY: |
| UNLESS OTHERWISE SPECIFIED | GILBERT |
| DIMENSIONS ARE IN INCHES | APPROVED |
| .XXX ± .005 | D Weil |
| FRACTIONS ± 1/32 | |
| .XX ± .01 | |
| ANGLES ± 5° | |
| X ± .1 | |
| 1. BREAK ALL SHARP EDGES .015 X 45° | |
| OR .015R | |
| 2. DIMENSIONAL LIMITS APPLY AFTER | |
| PLATING | |
| | USED ON MODEL |
| | AW139 |
| SCALE | DATE |
| 1:8 | 7/23/2013 |
| SHEET | 1 OF 11 |

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| REVISIONS | | | | |
|-----------|---|---------|---------|----------|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED |
| 1 | -11 ASSY. REPLACED WITH -15, DELETED -13 & -31. ADDED -10,-16 AND -45, -47. | 9/27/13 | PW | DW |

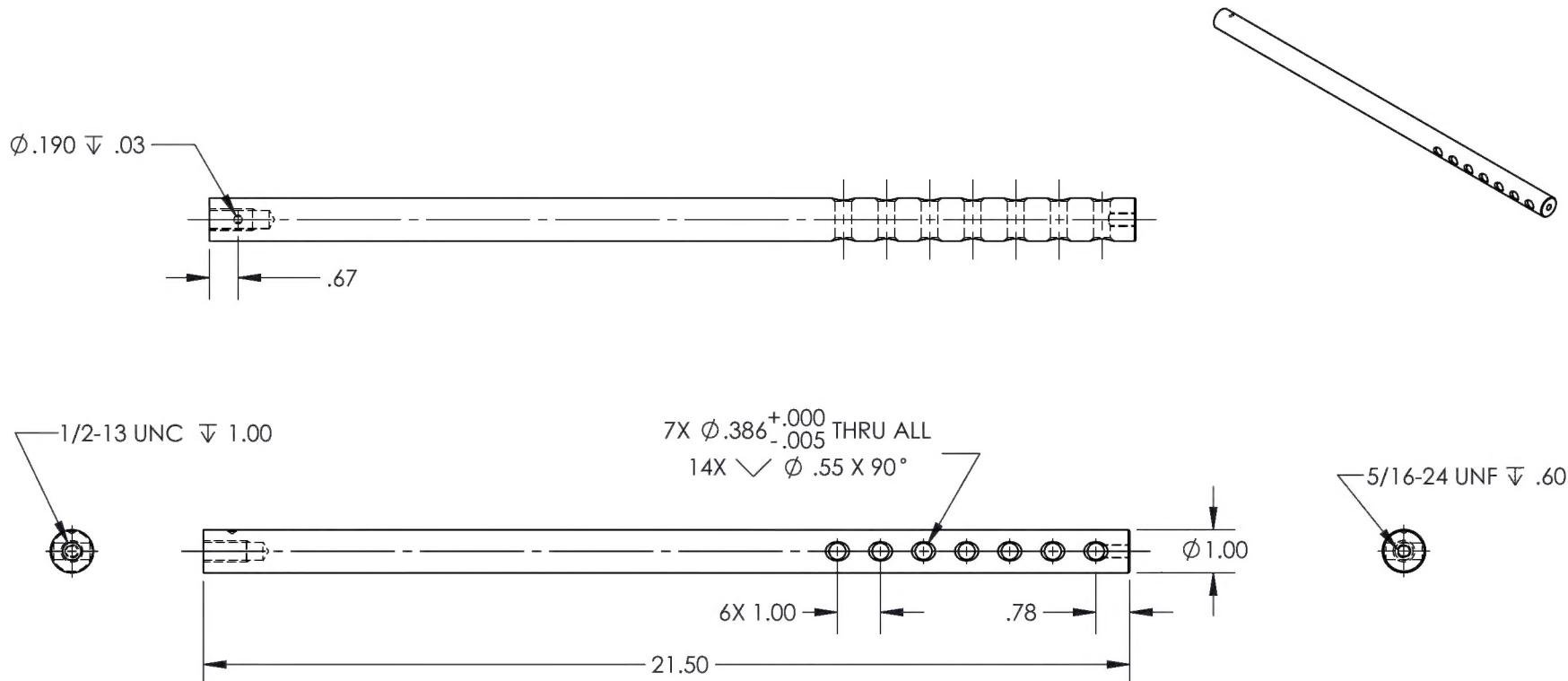


(-1)
GAG BAR ASSEMBLY

| | |
|-------------------------------------|-------------------------|
| RED BARN MACHINE | |
| TITLE | AW139 GAG BAR |
| DWG NO. | RBW10003-1 |
| REV | 1 |
| MATL | DRAWN BY: GILBERT |
| UNLESS OTHERWISE SPECIFIED | APPROVED: <i>D Weil</i> |
| DIMENSIONS ARE IN INCHES | HEAT |
| .XXX ± .005 | TREAT |
| XX ± .01 | FINISH |
| X ± .1 | ANGLES ± .5° |
| 1. BREAK ALL SHARP EDGES .015 x 45° | SPEC |
| OR .015R | USED ON MODEL |
| 2. DIMENSIONAL LIMITS APPLY AFTER | AW 139 |
| PLATING | |
| SCALE | 1:4 |
| DATE | 3/21/2013 |
| SHEET | 2 OF 11 |

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| REVISIONS | | | | | |
|-----------|---|----------|---------|----------|--|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED | |
| A | -3 ADDED ϕ .190 ∇ .03 HOLE FOR -43 SET SCREW. CH'D FINISH WAS CLEAR ANODIZE IS RED ANODIZE. | 9/3/2013 | RJC | DW | |
| 1 | -3 CAP REMOVED, ADDED TAPPED HOLE 1/2-13 ∇ 1.00. CH'D MATERIAL WAS 6061 IS 1018 CD, CH'D FINISH WAS ANODIZE RED IS NICKEL PLATE. CH'D ROD DIA. WAS .99 IS 1.00. CH'D HOLE CALLOUT WAS 7X ϕ .377 IS 7X .386. | 9/27/13 | PW | DW | |



(-3)

ROD

NOTE:
NICKEL PLATE .0004-.0006, BAKE AFTER PLATING.



RED BARN MACHINE

TITLE

AW139 GAG BAR

DWG NO.

RBW10003-3

REV
1

MATL 1018 CD

DRAWN BY: GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

APPROVED *D Weil*

.XXX \pm .005 FRACTIONS \pm 1/32

HEAT TREAT

.XX \pm .01 ANGLES \pm .5°

FINISH NICKEL PLATE

.X \pm .1

SPEC SEE NOTE

1. BREAK ALL SHARP EDGES .015 x 45°

USED ON MODEL

OR .015R

AW139

2. DIMENSIONAL LIMITS APPLY AFTER

PLATING

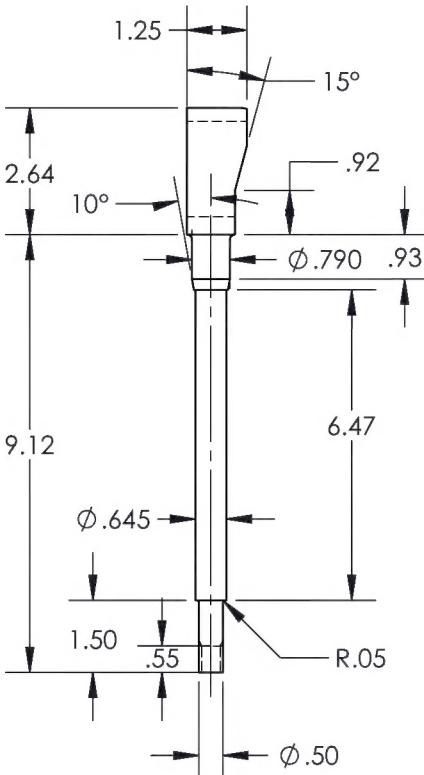
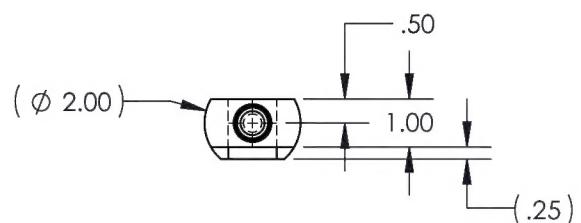
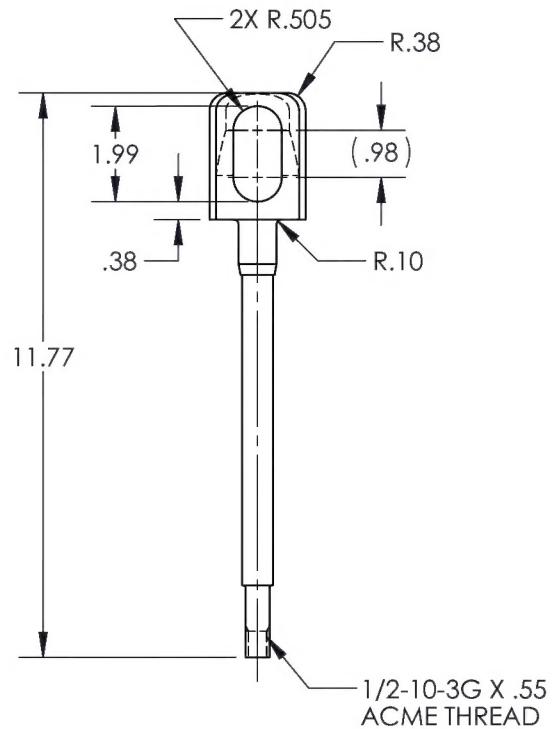
SCALE 1:4

DATE 5/31/2012

SHEET 3 OF 11

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| REVISIONS | | | | | |
|-----------|--|-----------|---------|----------|--|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED | |
| A | -5 CH'D 1/4-20 UNC COUNTERSINK WAS \checkmark ϕ .38 X 90° IS \checkmark ϕ .50 X 60°. CH'D FINISH WAS CLEAR ANODIZE IS RED ANODIZE. | 9/3/2013 | RJC | DW | |
| 1 | -5 REMOVED 1/4-20 \checkmark .75 THREADED HOLE AND ADDED EXTERNAL 1/2-10-3G ACME THREAD. INCREASED LENGTH OF SHAFT AND LENGTH OF SLOT. CH'D MATERIAL WAS 6061 IS 4140 HEAT TREATED. CH'D FINISH WAS ANODIZE RED IS .0004-.0006 NICKEL PLATE AND ADDED BAKE NOTE. | 9/26/2013 | PW | DW | |



PIN BLOCK

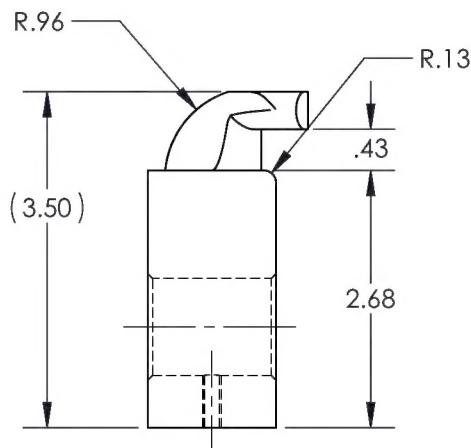
(-5)

NOTE:
NICKEL PLATE .0004-.0006, BAKE AFTER PLATING.

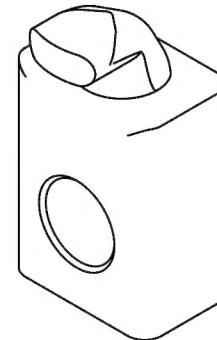
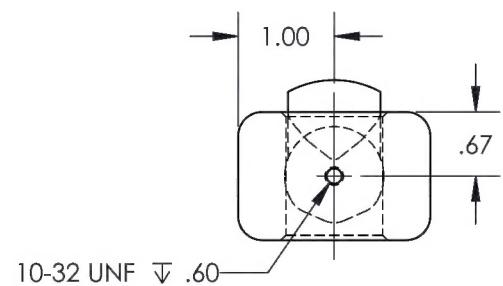
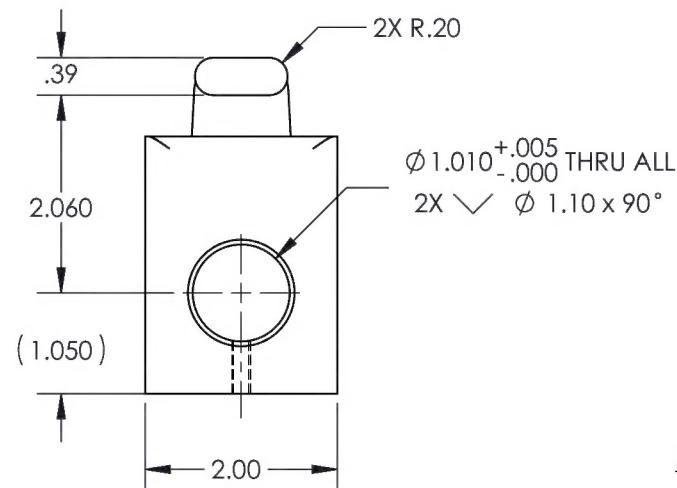
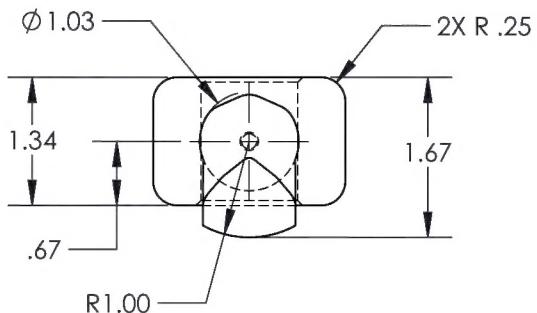
| | | |
|---|----------------------|---------------------------|
| | RED BARN MACHINE | |
| TITLE | AW139 GAG BAR | |
| DWG NO. | RBT10003-5 | |
| MATL | 4140 | DRAWN BY: GILBERT |
| UNLESS OTHERWISE SPECIFIED | | APPROVED |
| DIMENSIONS ARE IN INCHES | | |
| .XXX \pm .005 | FRACTIONS \pm 1/32 | HEAT RC 35-39 |
| XX \pm .01 | ANGLES \pm .5° | TREAT FINISH NICKEL PLATE |
| X \pm .1 | | SPEC SEE NOTE |
| 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R | | USED ON MODEL |
| 2. DIMENSIONAL LIMITS APPLY AFTER PLATING | | AW139 |
| SCALE | 1:3 | DATE 5/31/2012 |
| | | SHEET 4 OF 11 |

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| REVISION | | | | |
|----------|--|-----------|---------|----------|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED |
| A | -7 ADDED #10-32 ∇ .60 HOLE FOR -43. CH'D FINISH WAS CLEAR ANODIZE IS RED ANODIZE. | 9/3/2013 | RJC | DW |
| 1 | -7 CH'D MATERIAL WAS 6061 IS 1018 CD. CH'D FINISH WAS ANODIZE RED IS .0004-.0006 NICKEL PLATE AND ADDED BAKE NOTE. CH'D HOLE DIA WAS 1.000 IS 1.010. | 9/27/2013 | PW | DW |



(7)
HOOK BLOCK



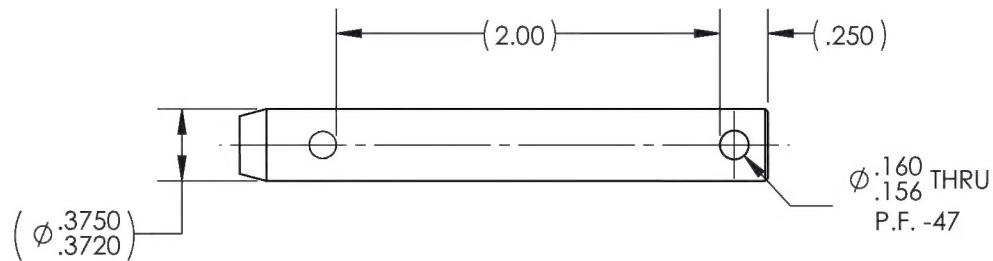
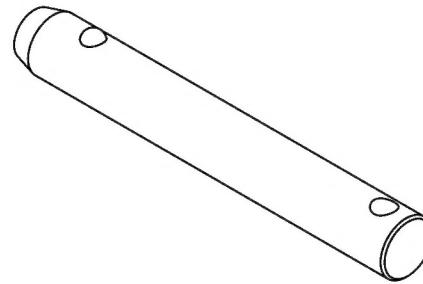
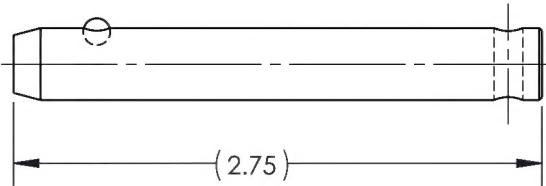
NOTE:

1. ALL PARTS MUST CONFORM TO FIXTURE RBW10003-TEST.
2. NICKEL PLATE .0004-.0006, BAKE AFTER PLATING.

| RED BARN MACHINE | |
|--|--------------------------------|
| TITLE | |
| DWG NO. | |
| AW139 GAG BAR | REV 1 |
| MATL 1018 CD | DRAWN BY: GILBERT |
| UNLESS OTHERWISE SPECIFIED | APPROVED D Weil |
| DIMENSIONS ARE IN INCHES | |
| .XXX \pm .005 | FRACTIONS \pm 1/32 |
| .XX \pm .01 | ANGLES \pm .5° |
| .X \pm .1 | |
| 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R | HEAT TREAT FINISH NICKEL PLATE |
| 2. DIMENSIONAL LIMITS APPLY AFTER PLATING | SPEC SEE NOTE 2 |
| | USED ON MODEL |
| | AW139 |
| SCALE 1:2 | DATE 5/31/2012 |
| | SHEET 5 OF 11 |

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| REVISIONS | | | | |
|-----------|---|------------|---------|----------|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED |
| 1 | -9 DELETED ONE Ø.15 HOLE, CH'D ONE HOLE WAS Ø.15 IS .156-.160 P.F. -47. | 12/26/2013 | RJC | DW |



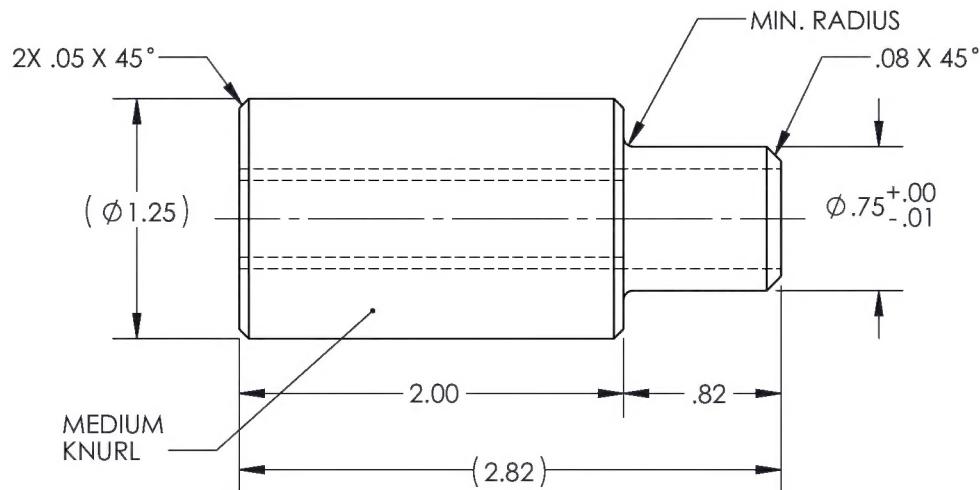
(-9)

QUICK RELEASE PIN

| | |
|--|-------------------------|
| RED BARN MACHINE | |
| TITLE | AW139 GAG BAR |
| DWG NO. | RBW10003-9 |
| MATL. S.S. | DRAWN BY: GILBERT |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES | APPROVED <i>D Weil</i> |
| .XXX ± .005 | FRACTIONS ± 1/32 |
| .XX ± .01 | ANGLES ± .5° |
| .X ± .1 | |
| 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R | HEAT TREAT FINISH |
| 2. DIMENSIONAL LIMITS APPLY AFTER PLATING | SPEC |
| | USED ON MODEL |
| | AW139 |
| SCALE | 1:2 |
| DATE | 6/13/2013 |
| SHEET 6 OF 11 | |

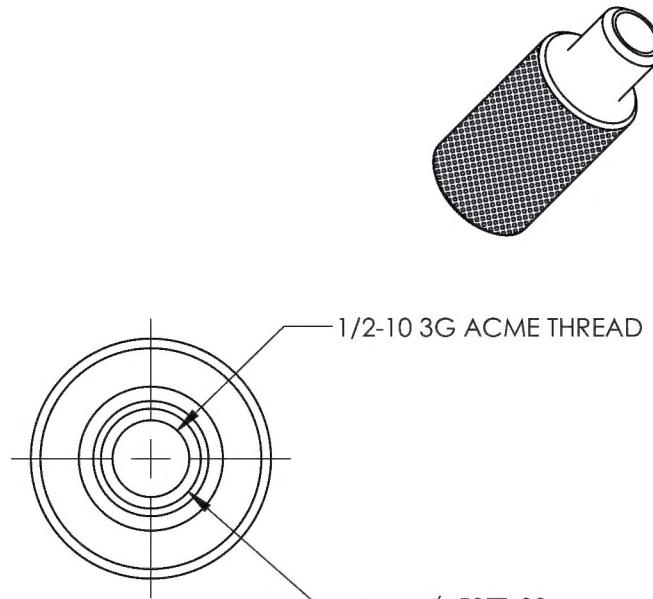
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| REVISIONS | | | | | |
|-----------|---|-----------|---------|----------|--|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED | |
| A | -15 CH'D FINISH WAS CLEAR ANODIZE IS RED ANODIZE. | 9/5/2013 | RJC | DW | |
| 1 | -15 CH'D GRIP LENGTH WAS .75 IS 2.00 AND OVERALL LENGTH CH'D WAS 1.75 IS 2.82. CH'D MAT'L WAS 6061 IS 1018 CD. REMOVED PIN HOLE AND THREADED HOLE. ADDED 1/2-10-3G ACME THREADS WITH COUNTER BORE. CH'D FINISH WAS ANODIZE RED IS .0004-.0006 NICKEL PLATE AND BAKE NOTE. | 9/27/2013 | PW | DW | |



(-15)

KNOB



NOTE:
NICKEL PLATE .0004-.0006, BAKE AFTER PLATING.

 RED BARN MACHINE

TITLE

AW139 GAG BAR

DWG NO.

RBW10003-15

REV
1

MAT'L 1018 CD

DRAWN BY: GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

APPROVED 

.XXX ± .005 FRACTIONS ± 1/32

HEAT TREAT

.XX ± .01 ANGLES ± .5°

FINISH NICKEL PLATE

.X ± .1

SPEC SEE NOTE

1. BREAK ALL SHARP EDGES .015 x 45°
OR .015R

USED ON MODEL

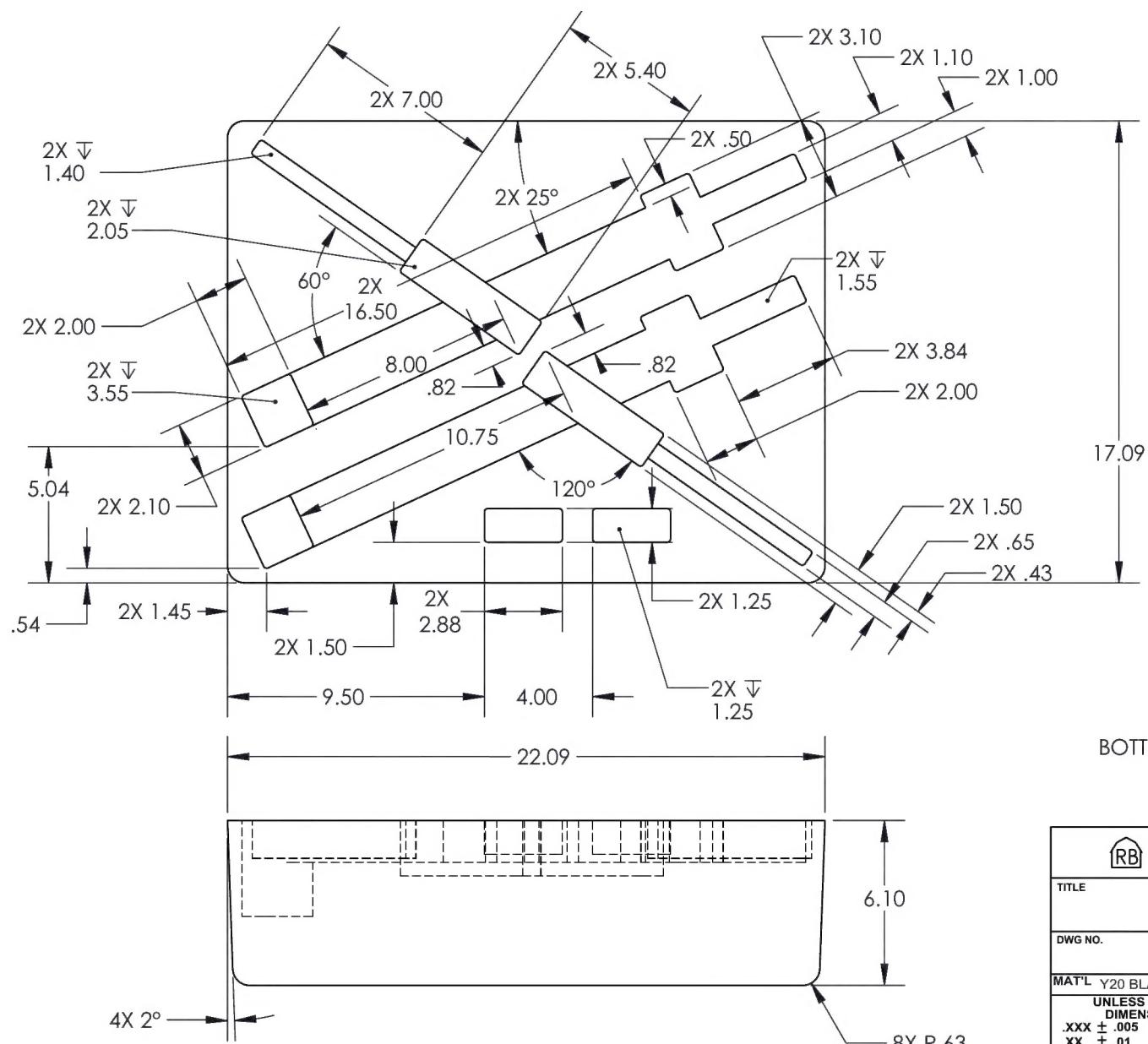
2. DIMENSIONAL LIMITS APPLY AFTER
PLATING

AW139

SCALE 1:2 DATE 7/23/2013 SHEET 7 OF 11

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| REVISIONS | | | | |
|-----------|----------------------------------|---------|---------|----------|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED |
| 1 | -33 CH'D CUTOUTS FOR -1 AND -15. | 9/27/13 | PW | DW |

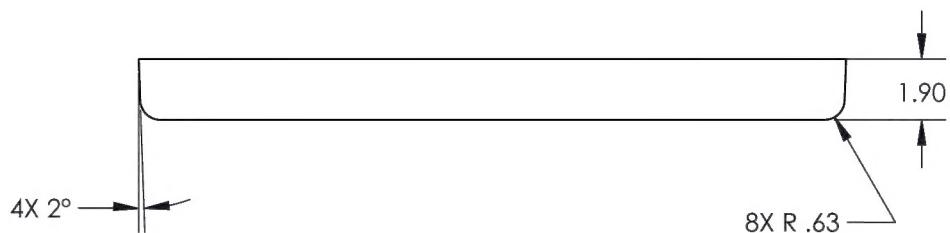
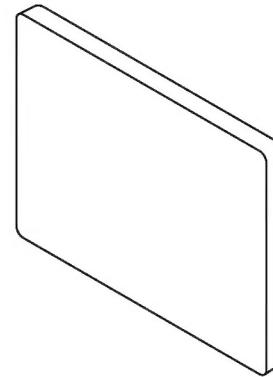
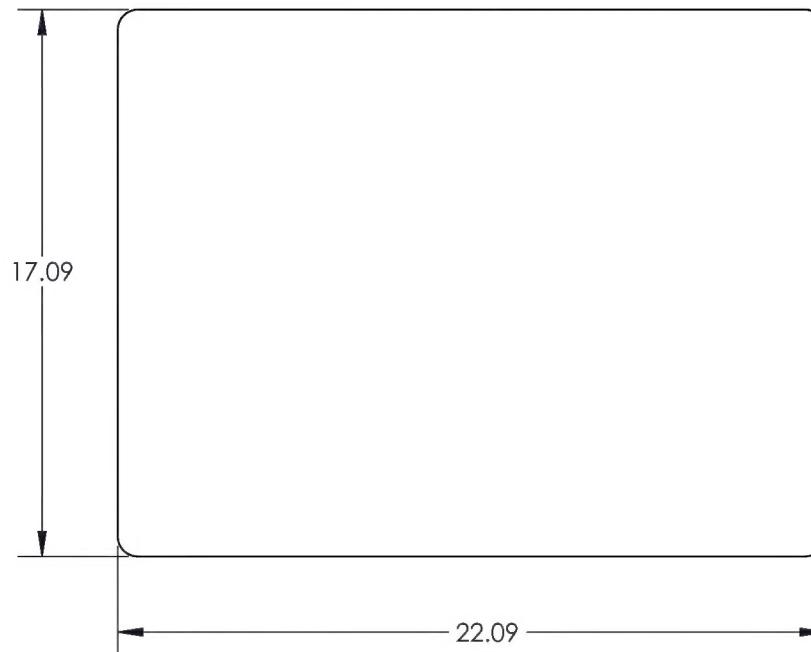


BOTTOM TOOL CUSHION

| | | |
|---|-------------------------|-----------------|
| | RED BARN MACHINE | REV 1 |
| TITLE | AW139 GAG BAR | |
| DWG NO. | RBW10003-33 | REV 1 |
| MATL Y20 BLACK | DRAWN BY: GILBERT | |
| UNLESS OTHERWISE SPECIFIED | APPROVED <i>D Weil</i> | |
| DIMENSIONS ARE IN INCHES | HEAT TREAT FINISH | |
| .XXX ± .005 | FRACTIONS ± 1/32 | |
| .XX ± .01 | ANGLES ± .5° | |
| .X ± .1 | SPEC | |
| 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R | USED ON MODEL | |
| 2. DIMENSIONAL LIMITS APPLY AFTER PLATING | AW139 | |
| SCALE 1:6 | DATE 7/24/2013 | SHEET 8 OF 11 |

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| REVISIONS | | | | |
|-----------|-------------|------|---------|----------|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED |

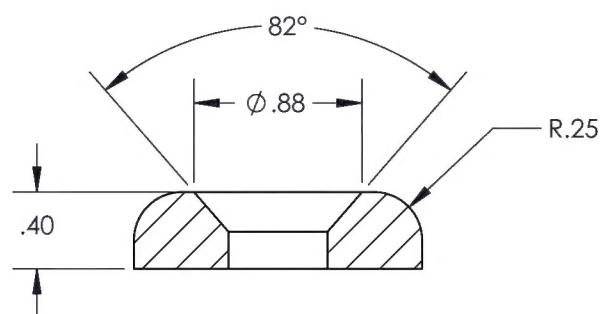
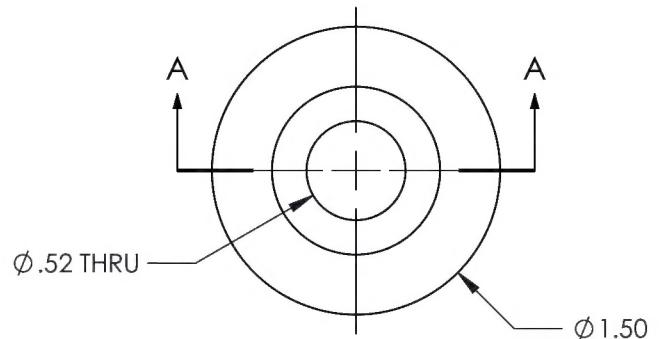


(-35)
TOP TOOL CUSHION

| | |
|--|------------------------|
|  RED BARN MACHINE | |
| TITLE | AW139 GAG BAR |
| DWG NO. | RBW10003-35 |
| MATL | Y-20 BLACK |
| UNLESS OTHERWISE SPECIFIED | DRAWN BY: GILBERT |
| DIMENSIONS ARE IN INCHES | APPROVED <i>D Weil</i> |
| .XXX ± .005 | FRACTIONS ± 1/32 |
| .XX ± .01 | ANGLES ± .5° |
| .X ± .1 | |
| 1. BREAK ALL SHARP EDGES .015 x 45° | HEAT |
| OR .015R | TREAT |
| 2. DIMENSIONAL LIMITS APPLY AFTER | FINISH |
| PLATING | SPEC |
| | USED ON MODEL |
| | AW139 |
| SCALE | 1:6 |
| DATE | 7/24/2013 |
| SHEET | 9 OF 11 |

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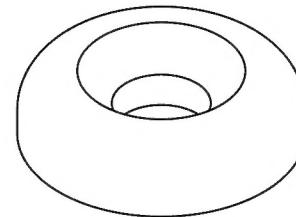
| REVISIONS | | | | |
|-----------|-------------------------------|---------|---------|----------|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED |
| 1 | -16 ADDED TO BOM AND -1 ASSY. | 9/27/13 | PW | DW |



SECTION A-A
SCALE 1 : 1

-16

BUTTON



NOTE:
NICKEL PLATE .0004-.0006, BAKE AFTER PLATING.



RED BARN MACHINE

TITLE

AW139 GAG BAR

DWG NO.

RBW10003-16

REV
1

MATL 1018 CD

DRAWN BY: WALLRICH

UNLESS OTHERWISE SPECIFIED

APPROVED *D Weil*

DIMENSIONS ARE IN INCHES

HEAT

.XXX ± .005 FRACTIONS ± 1/32

TREAT

.XX ± .01 ANGLES ± .5°

FINISH

.X ± .1

NICKEL PLATE

1. BREAK ALL SHARP EDGES .015 x 45°

SPEC SEE NOTE

OR .015R

USED ON MODEL

2. DIMENSIONAL LIMITS APPLY AFTER

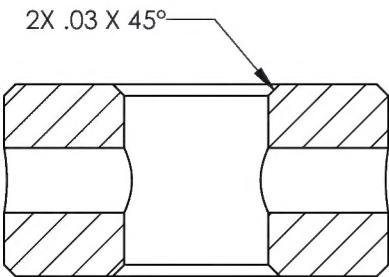
AW139

PLATING

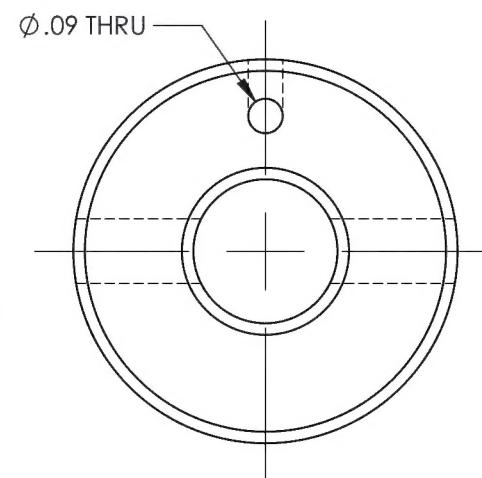
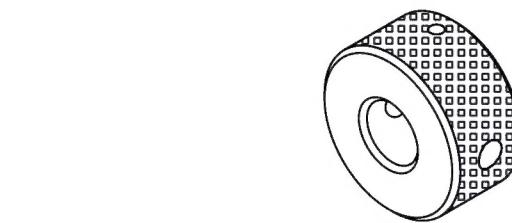
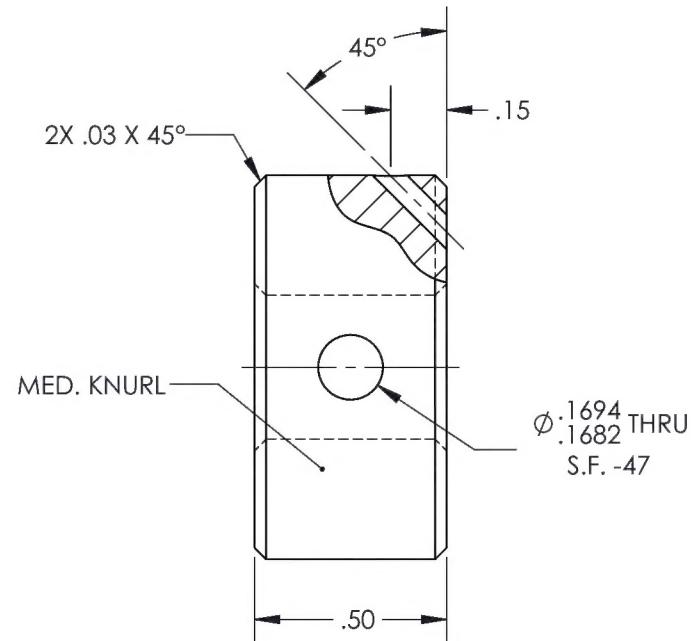
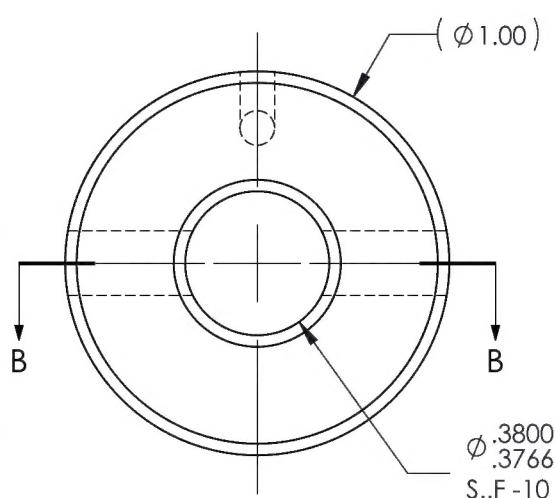
SCALE 1:4 DATE 9/26/2013 SHEET 10 OF 11

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| REVISIONS | | | | |
|-----------|------------------------------|------------|---------|----------|
| REV | DESCRIPTION | DATE | INITIAL | APPROVED |
| 1 | -10 ADDED KNOB TO PUT ON -9. | 12/19/2013 | RJC | DW |



SECTION B-B



NOTE:
NICKEL PLATE .0004-.0006, BAKE AFTER PLATING.

-10

KNOB

 RED BARN MACHINE

TITLE

AW139 GAG BAR

DWG NO.

RBW10003-10

REV
1

MATL 1018

DRAWN BY: CLOUGH

UNLESS OTHERWISE SPECIFIED

APPROVED 

DIMENSIONS ARE IN INCHES

HEAT

.XXX ± .005 FRACTIONS ± 1/32

TREAT

.XX ± .01 ANGLES ± .5°

FINISH

.X ± .1

NICKEL PLATE

1. BREAK ALL SHARP EDGES .015 x 45°

SPEC SEE NOTE

OR .015R

USED ON MODEL

2. DIMENSIONAL LIMITS APPLY AFTER

AW139

PLATING

SCALE 2:1 DATE 12/19/2013 SHEET 11 OF 11